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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,643	10/22/2003	Seiji Sakaki	61282-040	4048

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McDERMOTT, WILL & EMERY
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Washington, DC 20005-3096

EXAMINER

LEE, CHUN KUAN

ART UNIT PAPER NUMBER

2182

DATE MAILED: 07/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/689,643	SAKAKI, SEIJI	
	Examiner	Art Unit	
	Chun-Kuan (Mike) Lee	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07/08/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) 1, 11 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 2002-320212.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 210, 243, 260, 292, 321, 350, 351, 352, 370, S400 and S420. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. Figure 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the

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applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: On page 16, line 13, the reference number for "device control function" appears to be incorrect.

Appropriate correction is required.

Claim Objections

4. Claim 1 is objected to because of the following informalities: the term "USB" did not clearly spell out as "Universal Serial Bus" and also it is unclear as to which version(s) of USB the applicant is referring to.

5. Claims 11 and 13 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend on another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2-11 recites the limitations "a USB host", "said USB host", "a USB device" and "a hub" on page 22 in

claim 2, lines 9-12; claim 3, lines 14 and 17; claim 4, lines 19 and 22;

then on page 23 in

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claim 5, lines 2-4; claim 6 line 10; claim 7, lines 12-14; claim 9, line 20

then on page 24 in

claim 9, lines 4-5; claim 10, line 8 and claim 11, line 15. There is insufficient antecedent basis for this limitation in the claim.

7. Claims 2 -11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. As per claim 2, the claim appears to state that there are two hosts connected to the same hub simultaneously. It appears to be unclear as to which "a USB host" and "said USB host" the applicant is referring to.

9. As per claim 3-10, it appears to be unclear as to which of the numerous references of "a hub", "a USB host", "said USB host" and "a USB device" that the applicant is referring to.

10. As per claim 11, it is unclear as to what version the "OTG Supplementary Specifications" the applicant is referring to. It also appears to be unclear as to which "a USB hub" the applicant is referring to.

Any claim not specifically is rejected by virtue of its dependency.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 12 and 13 are rejected under 35 U.S.C. 101 because the "program" disclosed in both claims are not tangible. It is unclear as to what type of program the applicant is referring and how this program can be executed. The claimed invention is directed to non-statutory subject matter. Program is not tangibly embodied in the 4 statutory category cited above.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1, 2, 4, 6, 7, 8, 9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Overtom et al. (U.S. Patent 6,732,218)

13. As per claim 1, Overtom et al teaches a USB unit control method, wherein, when coupling a plurality of USB units including a dual-role device acting as a USB device or a USB host via a hub (column 1, lines 50-60; column 2, lines 55-67 and column 3, lines 1-20), said method determines the function of said dual-role device assumed when it is connected, and switches said dual-role device between a USB device and a USB host (column 4, lines 46-59 and column 5, lines 8-16).

14. As per claim 2, Overtom et al teaches a USB unit control method, wherein, in case a dual-role device acting as a USB host is connected to a hub where a USB host is connected, said method makes a switchover of said dual-role device from a USB host

to a USB device, and reports said switchover to said USB host (column 3, lines 9-25).

When coupling a plurality of USB units via a hub, it is inherent that the USB host keeps track of the connectivity status of all other USB devices.

15. As per claim 4, Overtoom et al teaches a USB unit control method, wherein, in case a USB host is connected to a hub via a four-wire USB cable, said method makes a switchover of all dual-role devices connected to said hub to USB devices, and reports said switchover to said USB host (column 3, lines 21-25).

16. As per claim 6, Overtoom et al teaches a USB unit control method, wherein said method determines the function of said dual-role device assumed when it is connected based on the state of a port where a USB unit is connected (Figure 4) or

change in the state of D+ or D- of a USB data line (column 4, lines 11-15 and column 4, lines 41-45), and

makes a switchover of said dual-role device between a USB device and a USB host (column 4, lines 46-60).

17. As per claim 7, Overtoom et al teaches a USB unit control method, wherein said method detects a specific request from a USB host connected to a hub and makes a switchover of a plurality of dual-role devices between a USB device and a USB host (column 5, lines 8-16). It is inherent that the implementation of the request did not involve sending anything, but rather fulfilling a predefined condition.

18. As per claim 8, Overtoom et al teaches a USB unit controller comprising of a USB host controller and a USB peripheral controller (Column 3, lines 40-54)

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19. As per claim 9, Overtoom et al teaches a USB unit controller, wherein said USB unit controller comprises

a hub for coupling a plurality of USB devices including a dual-role device acting as a USB device or a USB host(item 102, Figure 1),

device control means for determining the function of said dual-role device assumed when it is connected (column 4, lines 11-19; column 4, lines 46-60 and column 5, lines 8-16), and

bus management means for making a switchover of a dual-role device connected to said hub between a USB device and a USB host (column 3, lines 40-54).

20. As per claim 11, Overtoom et al teaches a USB unit controller comprises at least one receptacle for a USB cable defined in the OTG Supplementary Specifications and functions as a USB hub (Figures 1-2; columns 2, lines 55-60 and column 3, lines 9-20).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

21. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Overtoom (US Patent 6,732,218) in view of the "On-The-Go Supplement to the USB 2.0 specification, Revision 1.0".

22. As per claims 3 and 10, Overtoom teaches a USB unit control method, wherein, when coupling a plurality of USB units including a dual-role device acting as a USB device or a USB host via a hub (column 1, lines 50-60, column 2, lines 55-67 and column 3, lines 1-20), said method determines the function of said dual-role device assumed when it is connected, and switches said dual-role device between a USB device and a USB host. (column 4, lines 46-59 and column 5, lines 8-16). And also teaches transferring host control from the hub to a first external device connected to a first port of the plurality of ports when a request for host control is received by the hub controller from the first external device via the first port, the first port being any of the plurality of ports (Claim 23, column 12, lines 6-21). And also teaches

a USB unit controller comprises device control means, wherein said device control means comprises a function for performing communications between a USB host and a USB device (column 4, lines 46-60),

a function for performing data communications (column 2, lines 64-67 and column 3, lines 1-3), and

executing the Host Negotiation Protocol (column 3, lines 59-66).

Overtoom fails to describe or disclose specifically the "Session Request Protocol" and the detection and starting or enabling of this protocol.

"On-The-Go Supplement to the USB 2.0 specification, Revision 1.0" teaches the specifications related to "Session Request Protocol" for USB 2.0 (sections 5.3-5.4, pages 37-42). Specifically defining the two methods, "data-line pulsing" and "Vbus pulsing", which comprise the "Session Request Protocol", stating that "dual-role device are required to be able to initiate and respond to SRP" (section 5.3.1, page 37) and that one of the required features for dual-role device is Session Request Protocol (section 3.2, page 5).

It would have been obvious to one of ordinary skill in this art, at the time of invention by applicant to have invent a control method such as Overtoom to incorporate "Session Request Protocol", considering it is a standard set forth by the "On-The-Go Supplement to the USB 2.0 specification, Revision 1.0".

In conclusion, in view of the specification requirements set forth by the "On-The-Go Supplement to the USB 2.0 specification, Revision 1.0" for "Session Request Protocol" (Section 5.3-5.4, page 37-42), the control method would be required to incorporate said protocol. Therefore, in the case when there is a plurality of dual-role devices connected to a hub (Overtoom, Figure 1), it would be obvious to switch the dual-role device that started the "Session Request Protocol" to a USB host and that the device control would also incorporate means for starting a Session Request Protocol.

23. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Overtoom (US Patent 6,732,218) in view of McCauley (US Patent 6,263,392).

Overtoom teaches a USB unit control method, wherein, when coupling a plurality of USB units including a dual-role device acting as a USB device or a USB host via a hub (column 1, lines 50-60, column 2, lines 55-67 and column 3, lines 1-20), said method determines the function of said dual-role device assumed when it is connected, and switches said dual-role device between a USB device and a USB host. (column 4, lines 46-59 and column 5, lines 8-16).

Overtoom fails to describe or disclose specifically the interface control between the USB device and USB host when the USB device is connected via a USB cable to a USB host and reporting the connection of said USB device to said USB host.

McCauley teaches the interface control between the USB device and USB host when the USB device is connected via a USB cable to a USB host and reporting the connection of said USB device to said USB host (Claim 1, column 10, lines 37-67).

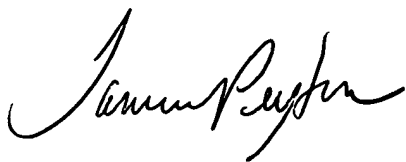
In conclusion, it would have been obvious to one of ordinary skill in this art, at the time of invention by applicant to have invent the control method such as Overtoom to include the case where a USB device is connected via a four-wired USB cable to a hub where a USB host is connected, wherein said method reports connection of said USB device to said USB host as suggested by McCauley.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chun-Kuan (Mike) Lee whose email is **chun-kuan.lee@uspto.gov**. The examiner can normally be reached on 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Popovici Dov can be reached on (571)272-4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chun-Kuan Lee

A handwritten signature in black ink, appearing to read "Chun-Kuan Lee", written in a cursive style.